

Rec'd PCT/PTO 02 SEP 2005

10/521313

**RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.

Application Serial Number: 10/521,313A

Source: PG 1/10

Date Processed by STIC: 9/2/05

***ENTERED***



PCT

## RAW SEQUENCE LISTING

DATE: 09/02/2005

PATENT APPLICATION: US/10/521,313A

TIME: 14:17:03

Input Set : A:\Q85741 Sequence Listing.txt

Output Set: N:\CRF4\09012005\J521313A.raw

3 <110> APPLICANT: PANGENOMICS Co., Ltd  
 5 <120> TITLE OF INVENTION: Her-2/neu DNA VACCINE HAVING ANTI-CANCER ACTIVITY  
 7 <130> FILE REFERENCE: PCA30540/PAN/PCT  
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/521,313A  
 C--> 9 <141> CURRENT FILING DATE: 2005-01-14  
 9 <150> PRIOR APPLICATION NUMBER: KR2002-41764  
 10 <151> PRIOR FILING DATE: 2002-07-16  
 12 <150> PRIOR APPLICATION NUMBER: KR2003-38012  
 13 <151> PRIOR FILING DATE: 2003-06-12  
 15 <160> NUMBER OF SEQ ID NOS: 24  
 17 <170> SOFTWARE: KopatentIn 1.71  
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 20 <211> LENGTH: 4530  
 21 <212> TYPE: DNA  
 22 <213> ORGANISM: human Her-2/neu gene cDNA  
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 27 cccggccccc acccctcgca gcaccccgcg ccccgcgccc tcccagccgg gtccagccgg 120  
 29 agccatgggg ccggagccgc agtgagcacc atggagctgg cggccttggt ccgctggggg 180  
 31 ctctctctcg cctctctgcc ccccgagacc gcgagcacc aagtgtgcac cggcacagac 240  
 33 atgaagctgc ggctccctgc cagtcccag acccacctgg acatgctccg ccacctctac 300  
 35 cagggtcgcc aggtggtgca gggaaacct gaactcacct acctgcccac caatgccagc 360  
 37 ctgtccttcc tgcaggatat ccaggaggtg cagggtctacg tgctcatcgc tcacaaccaa 420  
 39 gtgaggcagg tcccactgca gaggctgcgg attgtgctgag gcacccagct ctttgaggac 480  
 41 aactatgccc tggcctgtgt agacaatgga gacccgctga acaataccac cctgtcaca 540  
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 47 gacatcttcc acaagaacaa ccagctggct ctccactga tagacaccaa ccgctctcgg 720  
 49 gcctgccacc cctgttctcc gatgtgtaag ggctcccgtg gctggggaga gagttctgag 780  
 51 gattgtcaga gcctgacgag cactgtctgt gccggtggct gtgcccgtg caaggggcca 840  
 53 ctgcccactg actgctgcca tgagcagtgt gctgcgggct gcacggggcc caagcactct 900  
 55 gactgcctgg cctgcctcca cttcaaccac agtggcatct gtgagctgca ctgcccagcc 960  
 57 ctggtcacct acaacacaga cagttttgag tccatgccc atcccagggg ccggtatata 1020  
 59 ttcggcgcca gctgtgtgac tgctgttccc tacaactacc tttctacgga cgtgggatcc 1080  
 61 tgcacctctg tctgccccct gcacaaccaa gaggtgacag cagaggatgg aacacagcgg 1140  
 63 tgtgagaagt gcagcaagcc ctgtgcccga gtgtgctatg gtctgggcat ggagcacttg 1200  
 65 cgagaggtga gggcagttac cagtgccaat atccaggagt ttgctggctg caagaagatc 1260  
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79 caagctctgc tccacactgc caaccggcca gaggacgagt gtgtgggcga gggcctggcc 1680
81 tgccaccagc tgtgcgcccg agggcactgc tggggtccag ggcccaccca gtgtgtcaac 1740
83 tgcagccagt tccttcgggg ccaggagtgc gtggaggaat gccagtgact gcaggggctc 1800
85 cccagggagt atgtgaatgc caggcactgt ttgccgtgcc accctgagtg tcagccccag 1860
87 aatggctcag tgacctgttt tggaccggag gctgaccagt gtgtggcctg tgcccactat 1920
89 aaggaccctc ctttctgcgt ggcccgtgc cccagcggtg tgaaacctga cctctcctac 1980
91 atgccatctt ggaagtttcc agatgaggag ggcgcagtgc agccttgccc catcaactgc 2040
93 acccactcct gtgtggacct ggatgacaag ggctgccccg ccgagcagag agccagccct 2100
95 ctgacgtcca tcgtctctgc ggtggttggc attctgctgg tcgtggtctt ggggggtggtc 2160
97 tttgggatcc tcatcaagcg acggcagcag aagatccgga agtacacgat gcggagactg 2220
99 ctgcaggaaa cggagctggt ggagccgctg acacctagcg gagcgatgcc caaccaggcg 2280
101 cagatgcgga tcctgaaaga gacggagctg aggaagggtga aggtgcttgg atctggcgct 2340
103 tttggcacag tctacaaggg catctggatc cctgatgggg agaatgtgaa aattccagt 2400
105 gccatcaaag tgttgaggga aaacacatcc cccaaagcca acaaagaaat cttagacgaa 2460
107 gcatacgtga tggctggtgt gggctcccca tatgtctccc gccttctggg catctgcctg 2520
109 acatccacgg tgcagctggt gacacagctt atgccctatg gctgcctctt agaccatgtc 2580
111 cgggaaaacc gcgacgcctt gggtcccag gacctgctga actggtgtat gcagattgcc 2640
113 aaggggatga gctacctgga ggatgtgcgg ctctacaca gggacttggc cgctcggaac 2700
115 gtgctggtca agagtcccaa ccatgtcaaa attacagact tcgggctggc tcggctgctg 2760
117 gacattgacg agacagagta ccatgcagat gggggcaagg tgcccatcaa gtggatggcg 2820
119 ctggagtcca ttctccgccc gcggttcacc caccagagtg atgtgtggag ttatggtgtg 2880
121 actgtgtggg agctgatgac ttttggggcc aaaccttacg atgggatccc agcccgggag 2940
123 atccctgacc tgctggaaaa gggggagcgg ctgccccagc ccccatctg caccattgat 3000
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171 tgcttttctg tttagttttt actttttttt ttttgtttt ttaaagacga aataaagacc 4440
173 caggggagaa tgggtgttgt atggggaggc aagtgtgggg ggtccttctc cacaccact 4500
175 ttgtccattt gcaaatatat tttggaaaac 4530

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178 <210> SEQ ID NO: 2
179 <211> LENGTH: 2052
180 <212> TYPE: DNA
181 <213> ORGANISM: human Her-2/neu gene without intracellular region
183 <400> SEQUENCE: 2
184 atggagctgg cggccttgtg ccgctggggg ctctctctcg ccctcttgcc ccccgagacc 60
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188 acccacctgg acatgctccg ccacctctac cagggctgcc aggtggtgca gggaaacctg 180
190 gaactcacct acctgcccac caatgccagc ctgtccttcc tgcaggatat ccaggaggtg 240
192 cagggtacg tgcctcatcg tcacaaccaa gtgaggcagg tccactgca gaggtgcgg 300
194 attgtgcgag gacccagct ctttgaggac aactatgccc tggccgtgct agacaatgga 360
196 gaccgcgtga acaataccac ccctgtcaca ggggcctccc caggaggcct gcgggagctg 420
198 cagcttcgaa gcctcacaga gatcttgaaa ggaggggtct tgatccagcg gaacccccag 480
200 ctctgctacc aggacacgat tttgtggaag gacatcttcc acaagaacaa ccagctggct 540
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204 ggctcccgtg gctggggaga gattgtcaga gctgacgcg cactgtctgt 660
206 gccggtggct gtgcccgtcg caaggggcca ctgcccactg actgctgcca tgagcagtgt 720
208 gctgccggct gcacggggcc caagcactct gactgcctgg cctgcctcca cttcaaccac 780
210 agtggcatct gtgagctgca ctgccagacc ctggctacct acaacacaga cagtttgag 840
212 tccatgccc atcccagggg ccggtataca ttggcgcca gctgtgtgac tgctgtccc 900
214 tacaactacc tttctacgga cgtgggatcc tgcacctcg tctgccccct gcacaaccaa 960
216 gaggtgacag cagaggatgg aacacagcgg tgtgagaagt gcagcaagcc ctgtgcccga 1020
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220 atccaggagt ttgctggctg caagaagatc tttgggagcc tggcatttct gccggagagc 1140
222 tttgatgggg acccagcctc caacactgcc ccgctccagc cagagcagct ccaagtgttt 1200
224 gagactctgg aagagatcac aggttaccta tacatctcag catggccgga cagcctgcct 1260
226 gacctcagcg tcttcagaa cctgcaagta atccggggac gaattctgca caatggcgcc 1320
228 tactcgctga ccctgcaagg gctgggcatc agctggctgg ggtgcgctc actgagggaa 1380
230 ctgggcagtg gactggccct catccaccat aacacccacc tctgcttctg gcacacggtg 1440
232 ccctgggacc agctctttcg gaaccgcac caagctctgc tccacactgc caaccggcca 1500
234 gaggacagtg gtgtgggcga gggcctggcc tggcaccagc tgtgcgccc agggcactgc 1560
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238 gtggaggaat gccgagtact gcaggggctc cccaggaggt atgtgaatgc caggcactgt 1680
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248 ggctgcccc cagagcagag agccagccct ctgacgtcca tcgtctctgc ggtggttggc 1980
250 attctgctgg tcgtggtctt gggggtggtc tttgggatcc tcatcaagcg acggcagcag 2040
252 aagatccgga ag 2052
255 <210> SEQ ID NO: 3
256 <211> LENGTH: 1956
257 <212> TYPE: DNA
258 <213> ORGANISM: human Her-2/neu gene without intracellular region and transmembrane
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260 <400> SEQUENCE: 3
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263 gcgagcacc aagtgtgcac cggcacagac atgaagctgc ggctccctgc cagtcccag 120
265 acccacctgg acatgctccg ccacctctac cagggctgcc aggtggtgca gggaaacctg 180
267 gaactcacct acctgcccac caatgccagc ctgtccttcc tgcaggatat ccaggaggtg 240

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Input Set : A:\Q85741 Sequence Listing.txt

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269 cagggctacg tgctcatcgc tcacaaccaa gtgaggcagg tcccactgca gaggctgcgg 300
271 attgtgcgag gcacccagct ctttgaggac aactatgccc tggccgtgct agacaatgga 360
273 gacccgctga acaataccac ccctgtcaca ggggcctccc caggaggcct gcgggagctg 420
275 cagcttcgaa gcctcacaga gatcttgaaa ggaggggtct tgatccagcg gaacccccag 480
277 ctctgctacc aggacacgat tttgtggaag gacatcttcc acaagaacaa ccagctggct 540
279 ctacactga tagacaccaa ccgctctcgg gcctgccacc cctgttctcc gatgtgtaag 600
281 ggctcccgtc gctggggaga gagttctgag gattgtcaga gcctgacgag cactgtctgt 660
283 gccgggtggc gtgcccgtcg caaggggcca ctgccactg actgctgcca tgagcagtgt 720
285 gctgccggct gcacggggcc caagcactct gactgcctgg cctgcctcca cttcaaccac 780
287 agtggcatct gtgagctgca ctgccagcc ctggtcacct acaacacaga cagtttgag 840
289 tccatgcccc atcccagggg ccggtatata ttccggcgca gctgtgtgac tgctgtctcc 900
291 tacaactacc tttctacgga cgtgggatcc tgcacctcg tctgccccct gcacaaccaa 960
293 gaggtgacag cagaggatgg aacacagcgg tgtgagaagt gcagcaagcc ctgtgcccga 1020
295 gtgtgctatg gtctgggcat ggagcacttg cgagagggtg gggcagttac cagtgccaat 1080
297 atccaggagt ttgtggctg caagaagatc tttgggagcc tggcatttct gccggagagc 1140
299 tttgatgggg accagcctc caacactgcc ccgctccagc cagagcagct ccaagtgttt 1200
301 gagactctgg aagagatcac aggttaccta tacatctcag catggccgga cagcctgcct 1260
303 gacctcagcg tcttcagaa cctgcaagta atccggggac gaattctgca caatggcgcc 1320
305 tactcgctga ccctgcaagg gctgggcata agctggctgg ggctgcgctc actgagggaa 1380
307 ctgggcagtg gactggccct catccaccat aacacccacc tctgcttcgt gcacacgggtg 1440
309 ccctgggacc agctctttcg gaacccgcac caagctctgc tccacactgc caaccggcca 1500
311 gaggacgagt gtgtgggcga gggcctggcc tgccaccagc tgtgcgcccg agggcactgc 1560
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319 gctgaccagt gtgtggcctg tgcccactat aaggaccctc ccttctgcgt ggcccgtgc 1800
321 cccagcggtg tgaaacctga cctctcctac atgcccactc ggaagtttcc agatgaggag 1860
323 ggcgcagtc agccttgccc catcaactgc acccactcct gtgtggacct ggatgacaag 1920
325 ggctgccccg ccgagcagag agccagccct ctgacg 1956
328 <210> SEQ ID NO: 4
329 <211> LENGTH: 27
330 <212> TYPE: DNA
331 <213> ORGANISM: Artificial Sequence
333 <220> FEATURE:
334 <223> OTHER INFORMATION: NF6 primer
337 <400> SEQUENCE: 4
338 ggtaccatgg agctggcggc cttgtgc 27
341 <210> SEQ ID NO: 5
342 <211> LENGTH: 31
343 <212> TYPE: DNA
344 <213> ORGANISM: Artificial Sequence
346 <220> FEATURE:
347 <223> OTHER INFORMATION: NSR1 primer
350 <400> SEQUENCE: 5
351 gtctagatga ttacgctcag agggctggct c 31
354 <210> SEQ ID NO: 6
355 <211> LENGTH: 23
356 <212> TYPE: DNA
357 <213> ORGANISM: Artificial Sequence

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360 <223> OTHER INFORMATION: NF5 primer
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367 <210> SEQ ID NO: 7
368 <211> LENGTH: 27
369 <212> TYPE: DNA
370 <213> ORGANISM: Artificial Sequence
372 <220> FEATURE:
373 <223> OTHER INFORMATION: NRM2 primer
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377 ttctagagca gtctccgcat cgtctac                                     27
380 <210> SEQ ID NO: 8
381 <211> LENGTH: 28
382 <212> TYPE: DNA
383 <213> ORGANISM: Artificial Sequence
385 <220> FEATURE:
386 <223> OTHER INFORMATION: NSF2 primer
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390 ggcgcgcccc ggcacagaca tgaagctg                                     28
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394 <211> LENGTH: 24
395 <212> TYPE: DNA
396 <213> ORGANISM: Artificial Sequence
398 <220> FEATURE:
399 <223> OTHER INFORMATION: NF3 primer
402 <400> SEQUENCE: 9
403 gccgcagcgg ccgccatgga gctg                                     24
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407 <211> LENGTH: 1535
408 <212> TYPE: DNA
409 <213> ORGANISM: mouse Eta-1 gene
411 <400> SEQUENCE: 10
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430 gatgaatctg acgaatctca ccattcggat gagtctgatg agaccgtcac tgctagtaca     600
432 caagcagaca ctttactcc aatcgctcct acagtcgatg tccccaacgg ccgaggtgat     660
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436 cctgatgcc aagatgagga cctcacctct cacatgaaga gcggtgagtc taaggagtcc     780
438 ctcgatgtca tccctgttgc ccagcttctg agcatgccct ctgatcagga caacaacgga     840
440 aagggcagcc atgagtcaag tcagctggat gaaccaagtc tggaaacaca cagacttgag     900
442 cattccaaag agagccagga gagtgccgat cagtcggatg tgatcgatag tcaagcaagt     960

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RAW SEQUENCE LISTING ERROR SUMMARY  
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Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:3; Line(s) 258

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L:9 M:270 C: Current Application Number differs, Replaced Current Application No

L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date